

III. Services Included in the Prospective Payment Rate

1. Acute Care Hospitals

The prospective payment rate will include all services provided in an acute inpatient setting except:

- a. Professional component, including physician and CRNA services and any other professional fees excluded under Part A Medicare.
- b. Ambulance, including neonatal intensive care transport.

2. Psychiatric Residential Treatment Facilities

The per diem reimbursement rate will be the "all-inclusive" rate as defined in Section I, item 29 of this plan.

(Deemed Approved)

SC: MA 99-007

EFFECTIVE DATE: 10/01/99

RO APPROVAL: AUG 11 2000

SUPERSEDES: MA 95-015

IV. Data Sources and Preparation of Data for Computation of Prospective Rates

Computation of prospective payment rates under this plan will require the collection and preparation of the following data elements: Per diem and per discharge DRG list, allowable inpatient costs, hospital specific add-ons, inflation, Medicaid inpatient discharge days and Diagnosis Related Group (DRG) relative weights, per diem relative weights, case-mix index, per diem reimbursement categories, outlier set-aside factor, and psychiatric residential treatment facility costs. A description of the source documents for the required data elements and the steps necessary for preparing the data for the rate computation described in Section V of this plan is presented in the following subsections.

A. Per Diem and Per Discharge DRG List

A list of DRGs to be paid by a per diem and a list of cases to be paid per discharge will be prepared utilizing the following general criteria:

1. Frequency of cases - DRGs which have statistically unreliable relative weights due to an insufficient number of observations, as determined below, will be assigned to the per diem list.

$$N = \frac{(Z \times S)^2}{(R)}$$

N = Minimum Sample Size Z = Confidence Level (90%)
 S = Standard Deviation
 R = Acceptance Factor (10%)

The following example demonstrates the use of the above formula.

DRG 022

Observations: 149 (There were 149 DRG 022 paid claims in the data base.)

Z: 1.645
 S: 1521.0
 R: (.10 x 2674.7)

$$N = \frac{(1.645 \times 1521.0)^2}{(.10 \times 2674.7)} = \frac{(2502.045)^2}{(267.47)} = 88$$

N = 88 (A sample size of 88 claims is required in order to set a reliable relative weight for DRG 022; hence, DRG 022 is paid on a per discharge basis.)

2. High Variance - DRG categories which have an unusually high variance will be assigned to the per diem list. High variance is defined as observations that are so widely scattered away from the mean (average) that in a statistical sense, the mean is unreliable.
3. Clinical Review - DRG categories which upon clinical review, are of a highly specialized nature such as neonatal intensive care, will be

(Deemed Approved)

SC: MA 99-007

EFFECTIVE DATE: 10/01/99

RO APPROVAL: *RO 01/01/99*

SUPERSEDES: MA 95-015

assigned to the per diem list.

4. The remaining DRGs shall be reimbursed under the per discharge payment method.

B. Allowable Inpatient Costs

Allowable inpatient cost information for each facility's 1990 fiscal year will serve as the basis for computation of the average cost per discharge and the hospital specific cost per day for acute care hospitals. In a separate computation, a cost per day will be determined for prospective reimbursement to freestanding long-term care psychiatric facilities. The source document for Medicaid allowable inpatient costs will be the HCFA-2552, which is the Medicare/Medicaid cost report. Inpatient allowable costs, charges and statistics will be extracted from the cost report and prepared for the rate computations using the following general guidelines.

1. Audited total facility costs are identified from the facility's Worksheet B Part I (BI) HCFA-2552. If an audited FY 1990 cost report was not available, an unaudited cost report adjustment ratio factor was used. This factor is equal to the ratio of audited cost divided by the reported (unaudited) cost.
2. Swing bed and Administrative Day payments will be deducted from the adult and pediatric cost center on the HCFA-2552.
3. Direct medical education costs from BI columns 20-24, CRNA costs from BI column 19 and capital cost from BII column 25 will be identified and subtracted from total facility costs as outlined in a and b below. An amount representing indirect medical education cost will be subtracted later in the rate computation. Direct medical education, indirect medical education and capital will be paid by hospital-specific add-ons.
 - a. Direct medical education expenses by cost center including the direct cost of intern and resident programs and nursing school expenses after step down will be identified and deducted from total facility costs on Worksheet BI by cost center.
 - b. Capital costs by cost center will be identified and deducted from total facility costs on Worksheet BI by cost center.
4. Adjusted total costs will be allocated to Medicaid inpatient hospital cost using the following methods.
 - a. A cost-to-charge ratio for each ancillary service will be computed by dividing total costs as adjusted in this section by total charges as reported on Worksheet C. This cost-to-charge ratio will then be multiplied by Medicaid charges (as reported on Worksheet DII or D-4 for Medicaid inpatient ancillary charges) to yield total Medicaid inpatient ancillary costs.

(Deemed Approved)

SC: MA 99-007

EFFECTIVE DATE: 10/01/99

RO APPROVAL: ACC 10/1/99

SUPERSEDES: MA 95-015

- b. A Medicaid patient day ratio for routine services will be computed for each routine cost center by dividing total Medicaid patient days by the total patient days, as reported on Worksheet S-3. This Medicaid patient day ratio will then be multiplied by total cost as adjusted in this section to yield total Medicaid inpatient routine costs.
5. Malpractice expenses (as reported on the HCFA-2552 Worksheet A-8) will be used to calculate the Medicaid malpractice costs to be added to adjusted Medicaid cost.
6. Indirect Medical Education cost will be calculated and deducted from total adjusted Medicaid cost.

C. Hospital Specific Add-ons

Computation of prospective rates under this plan will also require calculation of hospital specific add-ons for indirect medical education, direct medical education and capital. The cost associated with these add-ons was previously described in Section IV B in order to deduct the inpatient share from allowable inpatient costs. In this section, the inpatient cost for indirect medical education, direct medical education and capital will be determined and a hospital-specific add-on reflecting these costs will be calculated and added to the base rate.

1. Indirect Medical Education (IME) cost is deducted in the final steps of the rate calculation. The IME percentage is multiplied by total adjusted Medicaid cost (after case-mix adjustment) to compute the amount to be deducted. The per discharge hospital-specific add-on is calculated by multiplying the IME percentage by the total adjusted per discharge Medicaid cost (after case-mix adjustment), inflating this amount, dividing by the per case discharges, and adjusting for the outlier set-aside. The per diem hospital-specific add-ons are calculated by multiplying the IME percentage by the total adjusted per diem Medicaid cost (after case-mix adjustment), inflating this amount, dividing by the per diem days and multiplying by each applicable category weight.

Indirect medical education reimbursement may also be limited by available funding. If funding is at a level less than 100%, each facility will receive their pro rata share of the funds available.

2. Direct Medical Education (DME) cost is deducted from total cost by line item. Medicaid DME cost allocated to the routine cost centers is computed by multiplying the ratio of Medicaid-to-total-days times total DME cost for each routine line. Medicaid DME cost allocated to the ancillary cost centers is calculated by multiplying the ratio of Medicaid-to-total-charges by the total DME cost for each line. All routine and ancillary lines are summed to get the total Medicaid DME cost which is inflated to 12/31/90 dollars (if applicable). By multiplying this amount by the ratio of per case charges-to-total-charges and the ratio of per diem charges-to-total-charges, total Medicaid DME cost is separated into

(Deemed Approved)

SC: MA 99-007

EFFECTIVE DATE: 10/01/99

RO APPROVAL: *[Signature]* 10/01/99

SUPERSEDES: MA 95-015

per case (per discharge) DME cost and per diem DME cost. These amounts are separately case-mix adjusted and inflated to 1/1/94 dollars. The per discharge portion is divided by per case discharges and adjusted for the outlier set-aside, while the per diem portion is divided by per diem days to get the DME add-on amounts. The per diem DME add-on amount is multiplied by the appropriate category weights to compute add-ons for the applicable per diem categories.

3. Capital cost is deducted from total cost by line item. Medicaid capital cost allocated to the routine and ancillary cost centers is calculated by applying the same method used to compute Medicaid DME cost. All capital cost lines are summed and reduced by 15%. Per case and per diem capital cost amounts are determined in the same manner as DME. These amounts are separately case-mix adjusted. No further inflation is applied. The hospital-specific per case and per diem add-on amounts are then computed in the same fashion as the DME add-ons. In no case shall the capital amount include amounts reflecting revaluation of assets due to change of ownership or leasing arrangement subsequent to September 1, 1984.
4. The hospital-specific add-on amounts will be added to the base DRG rate prior to multiplying by the DRG relative weight for each case and to the per diem rate prior to multiplying by the number of days for each case.

D. Inflation

A series of inflation indices shall be applied to the 1990 base year cost in order to adjust these costs to more closely reflect the cost of services in the current reimbursement year. The TEFRA Non-PPS values shown in the table below will be used to inflate costs for fiscal years 1990 through 1994.

<u>Period</u>	<u>TEFRA Non-PPS Rate of Increase</u>
10/1/89 - 9/30/90	5.2%
10/1/90 - 9/30/91	4.4%
10/1/91 - 9/30/92	4.7%
10/1/92 - 9/30/93	4.7%
10/1/93 - 9/30/94	4.9%

Because these rates of increase are based on the Federal fiscal year, they will be adjusted to coincide with the State fiscal year.

The following calculations are performed to adjust FY 1990 costs to the reimbursement period.

1. To compensate for varying fiscal year ends, each facility's 1990 fiscal year cost will be adjusted to reflect dollars as of a single point in time (12/31/90). For example, a facility with a 6/30 fiscal year end will have an additional inflation factor applied to

(Deemed Approved)

SC: MA 99-007

EFFECTIVE DATE: 10/01/99

RO APPROVAL: *AKC 10/1/2000*

SUPERSEDES: MA 98-011

its costs. This inflation factor will be calculated by dividing the number of days between 6/30 and 12/31 (184) by 365. The resulting percent will be multiplied by the applicable TEFRA Non-PPS factor. This factor will be calculated by adding 1.00 to the sum of the values derived from multiplying 5.2% times 9/12 (9 months of FY 1990) and multiplying 4.4% times 3/12 (3 months of FY 1991).

2. A factor will be calculated to inflate costs from July 1, 1990 (midpoint of December 31, 1990 fiscal year) to January 1, 1994 (midpoint of June 30, 1994 fiscal year). This factor is calculated by adding 1.00 to a through e below and then multiplying these numbers together.
 - a. $3/12 \times .052$
(three months of the FY 1990 rate of increase)
 - b. $12/12 \times .044$
(twelve months of the FY 1991 rate of increase)
 - c. $12/12 \times .047$
(twelve months of the FY 1992 rate of increase)
 - d. $12/12 \times .047$
(twelve months of the FY 1993 rate of increase)
 - e. $3/12 \times .049$
(three months of the FY 1994 rate of increase)

This factor 1.173522 is applied to Medicaid cost in the rate calculation.

3. In subsequent rate years, the DHHS will inflate the PPS rates using the lesser of the DRI Hospital Market Basket, the TEFRA Non-PPS rate of increase or an inflation factor set by the DHHS. Inflation will be applied using the midpoint to midpoint inflation policy. In addition, for future rate rebasing, previous estimates of inflation for prior years may be corrected to new estimates or to the actual amount if available. An adjustment will be necessary when a previously used estimate is higher than the actual TEFRA Non-PPS rate of increase.

Effective October 1, 1999, the DHHS increased the PPS base rates (excluding add-on components) by 15% in order to address the reduction in DSH funding effective in federal fiscal year 2000.

The DHHS will inflate the hospital PPS rates ensuring compliance with the Medicare upper limit test. The PPS base rates (excluding add-on components) shall be updated as follows:

FY 1994-1995	0.0%
FY 1995-1996	6.0%
FY 1996-1997	0.0%
FY 1997-1998	4.0%

(Deemed Approved)

SC: MA 99-007

EFFECTIVE DATE: 10/01/99

RO APPROVAL: 4/10/2000

SUPERSEDES: MA 97-009

FY 1998-1999

0.0%

FY 1999-2000

15.0%

E. Medicaid Inpatient Discharges and Days

In the case of per discharge (also called per case) reimbursement, the number of Medicaid discharges for patients including nursery is required. In the case of per diem reimbursement, the number of Medicaid days is required. The source for these data are described below.

1. The number of discharges for the hospital 1990 fiscal year will be the sum of the number reported on Worksheet S-3 (HCFA-2552) as Medicaid discharges. These discharges are multiplied by the proportion of per case discharges to total 1990 claim discharges to get per case discharges.
2. The reported Medicaid inpatient days from Worksheet S-3 are multiplied by the proportion of per diem category days to total 1990 claim days to get per diem days.
3. The number of days for freestanding long-term care psychiatric hospitals will be the number on Worksheet S-3.

F. DRG Relative Weights

Relative weights used for calculating reimbursement for cases paid by discharge will be derived from South Carolina Medicaid hospital claim data. All claims, including those subsequently paid by per diem are included in the relative weight computation. The methodology used for computing relative weights utilizes claim charge data and is described below.

1. Hospital claims with admission dates on or after January 1, 1989 and paid as of April 30, 1993 are included in the computation and prepared as follows:
 - a. Claims are edited to merge interim bills for the same discharge.
 - b. Claims with lengths of stay greater than 200 days, patient ages less than zero and paid amounts less than or equal to zero are deleted.
 - c. Claims containing information clinically inconsistent through application of the Medicare code editor software are deleted.
 - d. DRGs are assigned to the claims using the HCFA Grouper versions 6 and 10.
 - e. Claims with allowed charges greater than \$1,000,000 and less than zero, lengths of stay greater than 1000 days and less than zero lengths of stay which could not be reconciled to the sum of the days associated with the line item detail, out-of-state non-border hospitals and other excluded providers are deleted.

(Deemed Approved)

SC: MA 99-007

EFFECTIVE DATE: 10/01/99

RO APPROVAL: 10/01/99

SUPERSEDES: MA 97-009

- f. Charges for varying years are adjusted to represent a common year through application of inflation indices described in Part D of this section.
 - g. Transfer claims, with the exception of DRGs 385 and 456, are deleted.
 - h. Readmissions within 1 day are discarded.
- 2. Relative weights are computed by calculation of the average Medicaid charge for each DRG category divided by the average charge for all DRGs.
 - 3. Relative weights assigned to per diem cases are not used.
 - 4. No adjustments are made to the relative weights.

G. Per Diem Relative Weights

A statewide per diem relative weight is computed for each of the six categories described in V A 2 of this plan. These weights are developed in order to adjust the hospital-specific per diem rates to reflect the appropriate level of care. These weights are calculated in a manner similar to the calculation of DRG relative weights as follows.

All FY 1990 claim charges reimbursed under the per diem reimbursement method are separated into the six per diem categories. An average charge for each category is determined, as well as an average charge for all per diem claims. The extremely high and low claims are deleted. The average charge for each category is divided by the average charge for all per diem categories to compute the relative weights. For each hospital the per diem case-mix index will be computed by multiplying the number of cases in each per diem category by the relative weight for that category, summing the result across per diem categories and dividing by the total number of per diem cases during the base year.

H. Medicaid Case-Mix Index

A case-mix index which is a relative measure of a hospital's resource use, will be used to adjust the per discharge and per diem cost amounts to the statewide average case-mix. Two case-mix indices are calculated for each facility under the Hybrid system. One for the cases paid per discharge and one for the cases paid per diem.

- 1. For each hospital the per discharge case-mix index will be computed by multiplying the number of FY 1990 claims in each per case DRG by the DRG relative weight, summing these amounts and dividing by the sum of the total per case discharges.
- 2. For each hospital the per diem case-mix index will be computed by multiplying the number of FY 1990 category days by the applicable category weight across the six categories; summing these amounts and dividing by the sum of the total FY 1990 per diem days across the six categories.

(Deemed Approved)
SC: MA 99-007
EFFECTIVE DATE: 10/01/99
RO APPROVAL: 2000
SUPERSEDES: MA 98-011

I. Per Diem Reimbursement Categories

Hospital-specific per diem rates shall be calculated for six (6) or more categories where appropriate as described in Section V of this plan. The six categories are: Routine with Surgery, Routine without Surgery, Special Care with Surgery, Special Care without Surgery, Neonatal Intensive Care with Surgery, and Neonatal Intensive Care without Surgery. The calculation of the per diem for each category requires a statewide per diem category relative weight as described in G above. These relative weights will be applied to the per diem cost per day to yield the rate for each per diem category.

J. Outlier Set-Aside Factor

The outlier set-aside factor will be computed by dividing the projected outlier payments by total payments in a full year period. Only claims for cases to be paid by the per discharge method will be included in this analysis. The outlier set-aside factor for the Hybrid PPS effective 10/1/93 will be .08472. The DHHS may adjust future set-asides to reflect more current information.

K. Psychiatric Residential Treatment Facility Costs

Psychiatric residential treatment facility per diem reimbursement rates, effective for dates of service beginning on or after 09/01/99, shall be calculated using each facility's allowable costs in accordance with HCFA Publication 15-1 and the all-inclusive rate definition. Cost will come from each facility's 1997 HCFA 2552 (Medicare/Medicaid Cost Report), with exception when applicable (e.g. professional service costs and subsequent period costs).

If applicable, add-ons will be calculated and applied to the RTF rate for services required by the RTF program subsequent to the 1997 cost reporting period. These add-ons will be calculated using future cost report and /or budgeted cost and statistical data.

Each facility's occupancy rate will be calculated. If a facility's occupancy rate is less than the statewide average RTF occupancy rate, the rate will be adjusted to reflect RTF days at the statewide average occupancy level. No occupancy adjustment will be made for state-owned and operated facilities.

The TEFRA Non-PPS rates of increase will be used to inflate the 1997 base year psychiatric RTF costs to January 1, 2000. These rates of increase will be applied from the base year to the rate period using the midpoint to midpoint method. Add-ons will be inflated forward to January 1, 2000.

Because audited cost reports are not available for the base year, desk audited cost report data will be used to set an interim rate. This interim rate will be effective until audited data is available. After an audit is performed, the interim rate may be adjusted to reflect audited allowable cost. If the rate is revised, all payments calculated with the interim rate will be adjusted to reflect payment with the final rate. See page 35, paragraph 4 for retrospective cost settlement requirements.

(Deemed Approved)

SC: MA 99-007

EFFECTIVE DATE: 10/01/99

RO APPROVAL: *ROC* 10/1/99

SUPERSEDES: MA 95-015

V. Reimbursement Rates

A. Inpatient Hospital

The computation of prospective rates under the Hybrid plan will require three distinct methods - one for computation of per discharge rates under the Hybrid PPS and a second for computation of per diem rates under the Hybrid PPS and a third for computation of the statewide per diem rate for freestanding long-term care psychiatric facilities.

1. Per Discharge Prospective Payment Rates

The following are involved in the computation of per discharge reimbursement rates.

- a. A statewide average cost per discharge is computed by summing the total adjusted inpatient Medicaid cost allocated to the per case DRGs for all facilities and dividing by the sum of the per case Medicaid discharges for all facilities. The inpatient Medicaid cost used in this equation will be adjusted as described in Section IV as noted below.

- B.3.a - direct medical education (if applicable)
- B.3.b - capital
- B.5 - malpractice
- H - case-mix
- C.1 - indirect medical education
- D - inflation
- J - outlier set-aside (.08472)

- b. Hospital-specific add-ons as derived in Section IV C will then be added to the rate using the following general methodology.

- (1) Medicaid's share of inpatient capital and capital related costs allocated to per case DRGs will be case-mix adjusted and divided by the Medicaid per case discharges to yield the capital add-on to be added to the base rate.
- (2) Medicaid's share of direct medical education cost allocated to per case DRGs will be case-mix adjusted and inflated and then divided by the Medicaid per case discharges to yield the direct medical education add-on to be added to the base rates.
- (3) Medicaid's share of indirect medical education costs allocated to per case DRGs will be inflated and then divided by the Medicaid per case discharges to yield the indirect medical education add-on to be added to the base rate.
- (4) Rate reconsideration adjustments granted under Section VIII B which consist of percent or fixed additions to the base rate will be included as a hospital specific factor

(Deemed Approved)

SC: MA 99-007

EFFECTIVE DATE: 10/01/99

RO APPROVAL: AUG 01 2000

SUPERSEDES: MA 95-015